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(54) **METHOD AND APPARATUS FOR AUTOMATIC GENERATION OF INFORMATION SYSTEM USER INTERFACES**

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(58) **Field of Classification Search** 717/105, 717/109

See application file for complete search history.

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(57) **ABSTRACT**

A method and apparatus for the specification and automatic generation of user interfaces of information system (computer programs) is provided. The method is based in pattern language to specify requirements in an un-ambiguous mode and with precise semantics. The pattern language allows a user interface model to be composed using elements of the pattern language (computer objects in the object oriented programming style) which fully specify the desired user interface. The semantics of the objects in the user interface model have one and only one definition such that user interface model can be validated in a validation process. The validation process eliminates bugs in the final computer program code which is automatically produced from the user interface model. A model (metamodel), an editor tool (computer program) implementing the model for creating specifications of the user interface model, DTD specification, code generators, and other artifacts are depicted and described here for obtaining such user interfaces for different platforms (computers and operating systems) and different programming languages without manual coding of the computer code to implement the user interface. The software obtained is ready to run and it is able to communicate with a business server component using a standardized Application Programmatic Interface (API).

20 Claims, 21 Drawing Sheets